

Remarks

Claims 1 and 12-14 have been amended. No claims have been canceled.

Therefore, claims 1-14 are now presented for examination.

In a Final Office Action mailed May 15, 2007, claims 1, 2, 3, 4, 7, 9, 11, 12, 13, and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Rakib et al. (U.S. Patent No. 6,426,983) in view of Domino et al. (U.S. Patent No. 6,259,752).

Applicant submits that the present claims are patentable over Rakib in view of Domino.

Rakib discloses a narrow band interference excision circuit for use in broadband digital data communication systems such as CDMA systems. The excision circuit includes a matrix of polyphase filters that divide the input signal into a plurality of narrow subbands. Each narrow subband signal is examined to determine if narrowband interference exists in that bin. This is done preferably by computing the average power of the subband signal. If a signal in a bin has an average power greater than some adjustable or adaptive threshold, then the entire subband signal is eliminated. A bank of polyphase synthesis filters reassembles the composite signal. An equalization circuit with an error predictor comprised of an adaptive FIR filter is coupled to adapt coefficients of the filter and generate a colored noise cancellation signal to remove colored noise from the input to the slicer. See Rakib at Abstract.

Domino discloses a system for reducing internal interference in a radio-frequency (RF) receiver includes providing a plurality of time slots within a frame where the receiver is configured to receive external RF signals during a receive time slot within the frame. External RF signals are prevented from reaching a front-end portion of the receiver and the receiver is activated, and a predetermined period of time is permitted to elapse to permit the receiver to settle. An interference data collection is performed

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during a period of time prior to a predetermined receive time slot where the data collected represents internally generated interference signals. The data collected during the interference data collection is processed to determine a bias value corresponding to the interference signals, and the receiver is then permitted to receive external RF signals during the predetermined receive time slot so that data is collected during the predetermined receive time slot. The data collected during the predetermined receive time slot is processed and the bias value is subtracted from the data collected to provide output data corresponding to the external RF signals absent the interference signals. See Domino at Abstract.

Claim 1 of the present application recites a corrector for setting to zero only amplitude samples with an amplitude greater than a threshold. Applicant submits that neither Rakib nor Domino disclose or suggest a corrector for setting to zero only amplitude samples with an amplitude greater than a threshold. Rakib has been cited as disclosing such a feature. See Office Action at page 4, last paragraph. Rakib discloses one embodiment where a detection and cancellation circuit examines each bin to determine if a narrow bandwidth interference signal is present in that bin. If so, the amplitude of *all the signals in the bin is reduced to zero*. See Rakib at col. 5, ll. 48-55.

In another embodiment, Rakib discloses the detection and cancellation circuit determining if a narrow band interference signal is present in a bin by computing the average power of all signals in the bin or subband and comparing that average power to a threshold set so as to detect most instances of narrowband interference. If the power in a subband is found to exceed the threshold then *the magnitudes of all signals in that*

subband are set to zero. Thus, there is no disclosure in Rakib of setting to zero only amplitude sample with an amplitude greater than a threshold.

Because Rakib and Domino fail to disclose or suggest a corrector setting to zero each amplitude sample with an amplitude greater than a threshold, any combination of Rakib and Domino would also fail to disclose or suggest the features. Therefore, claim 1 is patentable over Rakib in view of Domino.

Claims 2-11 depend from claim 1 and include additional features. Thus, claims 2-11 are also patentable over Rakib in view of Domino.

Independent claims 12-14 also recite a corrector setting to zero only amplitude sample with an amplitude greater than a threshold. Thus, claims 12-14 are patentable over Rakib in view of Domino for the reasons discussed above with respect to claim 1.

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Rakib et al., in view of Domino et al., and in further view of Staudinger et al. (U.S. Patent No. 6,407,634). Applicant submits that the present claims are patentable over Rakib and Domino even in view of Staudinger.

Staudinger discloses a linear envelope tracking radio frequency (RF) power amplifier having an adaptive analog signal processing circuit. The amplifier outputs a voltage which is sampled by the adaptive analog signal processing circuit. The adaptive analog signal processing circuit generates an error signal which varies the linearity of the power amplifier. The error signal controls a modulator which in turn controls the supply voltage to the power amplifier. The control signal varies a controller which in turn varies a load placed on the power amplifier. The load in turn varies in linearity of the amplifier. See Staudinger at Abstract.

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However, Staudinger does not disclose or suggest a corrector setting to zero only amplitude samples with an amplitude greater than a threshold. As discussed above, the combination of Rakib and Domino also does not disclose or suggest such a feature. Thus, any combination of Rakib, Domino and Staudinger would also not disclose the feature. As a result, the present claims are patentable over the combination of Rakib, Domino and Staudinger.

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Rakib et al., in view of Domino et al., and in further view of Ma et al. (U.S. Patent No. 6,292,054). Applicant submits that the present claims are patentable over Rakib and Domino even in view of Ma.

Ma discloses a signal amplification system involves decomposing a signal into two or more parts, amplifying the parts and then combining the amplified parts to produce the amplified signal. The decomposition can be done such that the resulting parts have characteristics that are amenable to efficient amplification. See Ma at Abstract.

Nonetheless, Ma does not disclose or suggest a corrector setting to zero only amplitude samples with an amplitude greater than a threshold. As discussed above, the combination of Rakib and Domino also does not disclose or suggest such a feature. Therefore, any combination of Rakib, Domino and Ma would also not disclose the feature. Accordingly, the present claims are patentable over the combination of Rakib, Domino and Ma.

Claims 8 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Rakib in view of Domino and in further view of Pulley et al. (U.S. Patent No.

6,754,292). Applicant submits that the present claims are patentable over Rakib and Domino even in view of Pulley.

Pulley discloses a receiver circuit is for processing a received signal which includes at least a first portion and a second portion which repeats the content of the first portion after a repeat interval. For example, the receiver may be for DVB-T signals using COFDM. Two correlation values are measured. The first is between the first portion of the received signal, delayed by the repeat interval plus a difference interval, and the second portion. The second is between the first portion of the received signal, delayed by the repeat interval minus a difference interval, and the second portion. Any difference between the correlation values represents a difference between the receiver sampling rate, and the required sampling rate, and can be used to adjust the receiver sampling rate. See Pulley at Abstract.

Nevertheless, Pulley does not disclose or suggest a corrector setting to zero only amplitude samples with an amplitude greater than a threshold. As discussed above, the combination of Rakib and Domino also does not disclose or suggest such a feature. Therefore, any combination of Rakib, Domino and Pulley would also not disclose the feature. Consequently, the present claims are patentable over the combination of Rakib, Domino and Pulley.

Applicant respectfully submits that the rejections have been overcome, and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

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Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP



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Mark L. Watson
Reg. No. 46,322

1279 Oakmead Parkway
Sunnyvale, California 94085-4040
(303) 740-1980

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